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SHEERLEGS AS AN ARCHAEOLOGICAL AID

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The name sheerlegs is given to a tripod used as a mechanical aid that has its apex tied together with a sheerlashing. As such, sheerlegs may have many uses, for example to suspend a block and tackle or to support various objects - the crown or apex being very stable and the leg arrangement being flexible so as to easily provide different heights. The sheerlashing consists of a secure horizontal lashing around two legs intersected by several vertical lashings so as to give the legs free parallel movement. The third leg is lashed to one of the two legs already tied together.

This standard design may be adapted to provide a very useful interpretative aid for archaeologists. For example, water pipes or scaffolding pipes make suitable legs and these may be connected by a standard scaffold swivel bracket. The third leg is replaced by a ladder which when elevated is secured by its own weight at the swivel junction, below the crown of the tripod. This point is the most stable position on the structure.

The types and dimensions of materials used in the construction depends on the stability and elevation required. We used 8 cm x 5 mm long scaffolding pipes and a wooden two stage extension ladder. However, a three-stage aluminium ladder may be more use as this is much lighter and has a greater elevation potential.

To raise the sheerlegs requires a degree of trial and error so the following points may provide some assistance. Firstly, the legs should be laid side by side on the ground and then bracketed together. The ladder is then placed at this position at an angle that ensures the free swing of the legs when the tripod is raised. The ladder should lie approximately at right angles to the legs. The diagram below shows how the sheerlegs should sit when raised. This is a simple procedure requiring two people and a degree of coordination. One person must take a position central to the ladder as he will do the lifting and the other person must take one leg. He will move this directly away from the other leg which will remain stationary as the ladder is lifted. With each person in position the ladder is lifted and in a consistently smooth coordinated movement one leg is walked away from the stationary leg. Done properly this will raise the construction with a minimum of fuss. The legs can then be adjusted to the satisfaction of the user. The height of this structure should be directly related to the area which is to be viewed. For example, the larger the area to be viewed the higher the sheerlegs. I have seen sheerlegs raised to a height of 10 m and still provide very stable viewing. This is obviously up to the individual.

With historic sites the advantage of elevation makes the task of pre-excavation interpretation much easier as overall feature patterns that cannot be seen from the ground are easily identified.

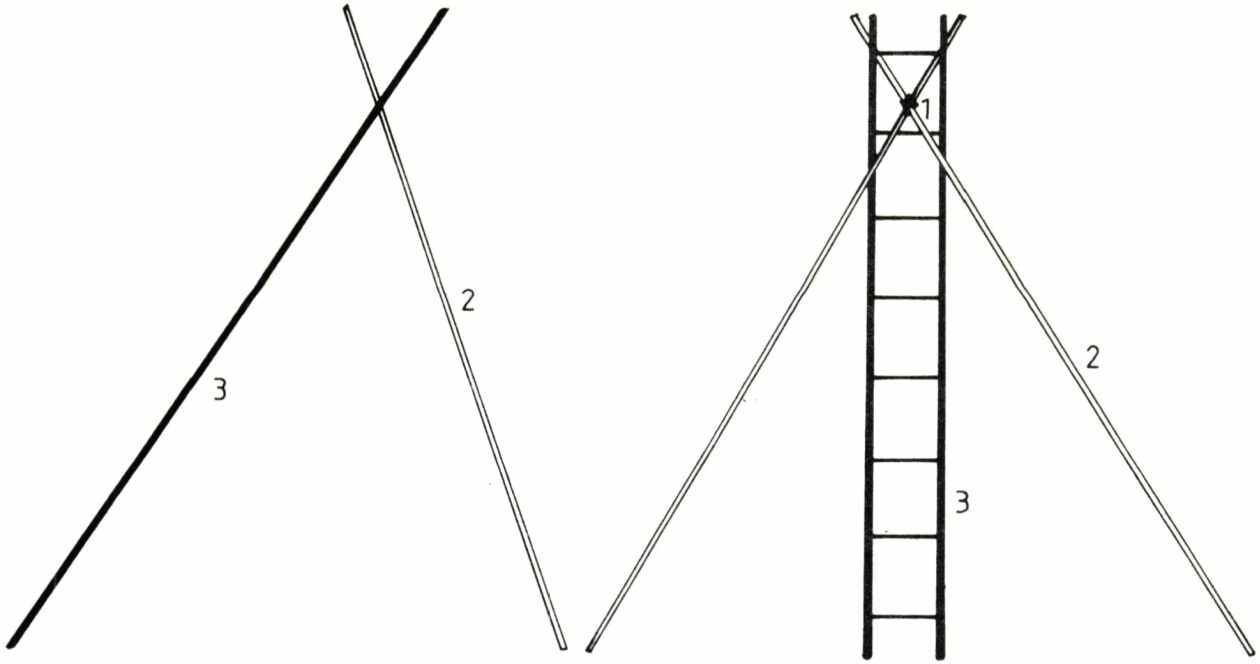

Diagram of sheerlegs

1 = bracket; 2 = pole support; 3 = ladder

Secondly this structure has obvious photographic value. We attached a photographic tripod to the ladder with two elastic hook straps and used a Rabone Chesterman bulls eye spirit level (No.1362) to adjust the camera horizontally. This allowed photography to be done with a minimum of distortion. The sheerlegs also form a stable base for oblique photography and vertical photography for site drawers, post-excavation work and publications. The stability of the sheer-leg's apex provides an excellent base from which to take long exposure shots and the legs cast minimal shadows and may sometimes be arranged so they are out of the photographer's field of view.

The construction is very safe and the elevation may be easily altered by increasing or decreasing the angle of various combinations of legs. With materials on hand the total construction time is less than half an hour. Given the ease of construction, mobility, unlimited elevation potential, stability and general safety plus the lack of shadows and minimal damage done to a site this structure is valuable as a photographic and interpretative archaeological aid.

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